

1943.

NEW ZEALAND.

LAND DEVELOPMENT COMMITTEE

(INTERIM REPORT OF THE, ON LAND DEVELOPMENT OPERATIONS).

(MR. ROBERTS, CHAIRMAN.)

Laid on the Table of the House of Representatives.

ORDER OF REFERENCE.

Extract from the Journals of the House of Representatives.

FRIDAY, THE 17TH DAY OF OCTOBER, 1941.

Ordered, "That a Select Committee be appointed, consisting of eight members, to consider the best means in the national interest of bringing back into production or of developing and utilizing deteriorated or marginal lands in the Dominion, the Committee to have power to sit during the recess and for twenty-eight days after the commencement of next session, and at such times and at such places as the Committee may think fit, and to report to the House within twenty-eight days after the commencement of the next ensuing session; the Committee to consist of Mr. Broadfoot, Mr. Goosman, Mr. Kidd, Mr. Roberts, Mr. Robertson, Mr. Thorn, Mr. Tirikatene, and Mr. Williams." (Hon. Mr. NASIL)

ORIGIN OF COMMITTEE.

The appointment of the Committee was the outcome of a criticism of the operations of the Lands and Survey Department in the development and reconditioning of certain lands under the provisions contained in the Land Laws Amendments Act, 1929, and the Small Farms Act, 1932-33, and which was made during a debate on the National Development Loans Bill. Certain matters relating to the accounts of the Department were referred to the Public Accounts Committee. All matters contained in the order of reference were dealt with by the Public Accounts Committee, which went a little beyond the order of reference and concluded its report as follows—

"The foregoing findings deal with matters comprised in the order of reference, but after considering the evidence produced in this inquiry the Committee recommends that the Government should set up a Select Committee to consider and report on the best methods of development and utilization in the national interest of lands of the types referred to in this report."

SCOPE OF INVESTIGATIONS.

The scope of the order of reference has given the Committee some concern, as it was considered that if an investigation was made into all the deteriorated and marginal lands of the Dominion a tremendous amount of work and investigation would be involved. Deteriorated lands are to be found in all the land districts in both Islands of the Dominion, whilst the term "marginal" is generally used to refer to land of low fertility which requires special treatment in order to make it productive, or lands which are only capable of economic farming during periods of high prices or low costs. The Committee has consequently concentrated on the actual areas and districts in which the Lands Department has been operating. Furthermore, the Committee has only been able to investigate the operations of the Department in the North Island, and to this end has visited each district and inspected a considerable number of the blocks under development. Owing to the serious change in the war situation in the Pacific it was decided to postpone the investigation into the South Island blocks indefinitely, and to submit a report on the North Island areas, which comprise by far the greater number of blocks under active development.

ITINERARY OF COMMITTEE.

The following blocks were inspected by the Committee on the dates mentioned:—

1941.		
6th November	..	Ohakune, Raetihi, Piu, and Mapara.
7th	"	Waitanguru, Otoru, Mangaorino, Pururu, Bain's (Te Kuiti district).
8th	"	Aria, Ngatamahine, Kohua, Kaeaea (Te Kuiti district).
10th	"	Te Rau-a-Moa, Burns', Henderson's, Mangatutu, Wharepapa, Maihiihi (Te Kuiti district).
11th	"	Kairangi, Ellicott's, Arohena (Te Kuiti district).
18th	"	Hoe-o-Tainui, Matanuku, Tokoroa (Morrinsville - Putaruru districts).
19th	"	Mihi, Waikite Valley, Broadlands (Rotorua district).
20th	"	Murupara, Galatea (Rotorua district).
21st	"	Onepu, Tarawera, Edgecumbe (Bay of Plenty district).
24th	"	Bradley's, Bassett's (Dargaville district).
25th	"	Mangawai.
27th	"	Whangamomona.
3rd December	..	Kakariki, Kaheka (Hawke's Bay district).
4th	"	Ahuriri Lagoon (Napier).

In each district the Committee had the opportunity of discussing all the problems of development with the Superintendent of Land Development in that area or with the local controlling officers. In addition, in some cases the opinions and experiences of local farmers were obtained.

HISTORY OF LAND DEVELOPMENT.

(1) *Land Laws Amendment Act, 1929.*

The development of land prior to settlement was first decided on as a matter of policy in 1929, and the Land Laws Amendment Act, 1929, brought into existence the Lands Development Board, one function of which was to develop suitable unoccupied Crown lands before they were offered for selection. Similarly, suitable unoccupied settlement land—i.e., land purchased for settlement under the Land for Settlements Act—could be developed prior to selection by lessees. The following blocks of land were developed by the Lands Development Board:—

Wharekohe ..	North Auckland.	Galatea ..	Rotorua.
Ngakuru ..	Rotorua.	Whangamarino ..	Auckland.
Te Kauwhata ..	Auckland.	Mangatutu ..	King-country.
Onepu ..	Bay of Plenty.	Pongakawa ..	Bay of Plenty.
Koromatua ..	Auckland.	Kakariki ..	Hawke's Bay.

With the exception of Galatea, of which a small portion only has been settled, and Kakariki, which is still under development, the remaining blocks have all been subdivided and settled. The Lands Development Board also undertook the reconditioning of isolated leaseholds and discharged soldiers' settlement securities which had reverted to the Crown and for which new selectors could not be obtained in their deteriorated condition.

(2) *Small Farms Act, 1932-33.*

The greater number of development blocks at present being handled by the Lands and Survey Department are being developed under the authority of the Small Farms Act, 1932-33, and its amendments. The original small farms scheme was administered by the Department of Agriculture in terms of the Unemployment Act, 1932, and comprised in the main the placing of unemployed married men on very small holdings from which they were intended to obtain portion of their livelihood, and at the same time supplement their earnings by obtaining what outside work was available. Unemployment was then at its height, and it was soon found that the men who had been established under the provisions of the scheme could not obtain the outside work which was necessary to supplement their earnings. A large number of the holdings were soon abandoned, but in some cases it was subsequently found possible to acquire more land and convert the original small holding into a self-supporting unit.

The Small Farms Act, 1932-33, established the Small Farms Board, and the administration of the scheme was placed under the Lands and Survey Department. The Board in its initial stages decided that it was futile to establish men on anything but fully economic holdings, and, although some success was achieved by acquiring suitable areas and establishing men with experience, it was realized at an early date in the Board's activities that if properties were to be available for settlement they would have to be first of all developed and prepared for the purpose. In very few cases was there any Crown land available, and it consequently became necessary to acquire partly improved freeholds or Crown leaseholds, and employ the men on development work. This policy had the following advantages:—

- (a) Work was provided for a large number of men. Not all of them were applicants for land, and in many cases single men's camps were established:
- (b) The men who were seeking land, being unemployed, had no capital, and it was very necessary that they should prove their suitability for farming before they were allotted holdings. Their employment on development work gave the employing authority an opportunity of assessing their suitability.

The extent of the area under development grew in relation to the need for the continued employment of the men, and for the employment of additional men from time to time. The following total shows the number of men employed at the 31st March in each year since 1934:—

1934	560	1939	1,646
1935	1,305	1940	1,101
1936	1,233	1941	721
1937	818	1942 (November) ..	292
1938	1,185		

At the present time a total of approximately 175,000 acres are being developed under the provisions of the Small Farms Act, 1932-33.

The functions of both the Lands Development Board and the Small Farms Board are now carried out by the Land Settlement Board, *vide* section 39 of the Statutes Amendment Act, 1941.

Land Development and Unemployment.

It will be seen that the development of land has been used as a means to alleviate the distress resulting from unemployment not only by the establishment of unemployed men as farmers, but also by giving useful productive work to large numbers of unemployed.

When development operations were first commenced by the Small Farms Board, the Board made it clear that, as the work was being undertaken solely for the relief of unemployment, the cost of the wages of the workmen engaged should be met entirely from moneys voted for the relief of unemployment, and that the land being developed should not be loaded with the wages-cost. The reasons for this attitude were—

- (1) The inefficient type of labour being used. The men concerned were recruited from the registered unemployed, and in many cases lacked experience in the class of work they were called on to perform, or were physically incapable of performing a good day's work:

- (2) The nature of the land being developed. It has already been pointed out that very little suitable Crown land was available for development and that freehold land had to be purchased or Crown leaseholds resumed. This statement must be qualified by the fact that in certain districts a large number of Crown tenants were leaving their holdings, in which a large amount of State capital had been invested, and these areas were available for reconditioning and development. As the first-class good-quality lands of the Dominion have long since been developed and are in private hands, it naturally follows that the land remaining for development was either reverted or marginal land which could not be expected to stand up to the full cost of its development, including labour-costs.

The labour-costs of development were accordingly met in the initial stages wholly from the funds of the Unemployment Board, but this system has been varied from time to time, and since 1936 the labour-costs have been subsidized only. The following statement shows the position since 1934 so far as labour-costs are concerned:—

1934}	Wages met in full by Unemployment Board.
1935}	
1936	Wages subsidized to the extent of five-eighths by Consolidated Fund.
1937}	Wages subsidized to the extent of five-eighths by Employment Promotion Fund.
1938}	
1939	Lump-sum subsidy of £50,000 from Consolidated Fund, which represented a subsidy of approximately 3s. 4d. in the pound.
1940	Lump-sum subsidy of £80,000, which represented a subsidy of approximately 8s. in the pound.
1941	Lump-sum subsidy of £80,000, which represented a subsidy of approximately 13s. 10d. in the pound.

Although the labour-costs were met for a period in full by the Unemployment Board and for the remaining period have been subsidized, the total expenditure on all labour is recorded, and is shown in the Department's balance-sheets as a liability against the land on which the expenditure was incurred. On the other hand, administration costs have not been charged against the land. The Committee is of the opinion that in view of the inefficient labour supplied and of the fact that the work was originally undertaken as a relief-of-unemployment measure, the wages-costs should have been fully subsidized.

Types of Land under Development.

The Committee found that totally different conditions were obtaining in each district visited. The types of land under development varied considerably, consequently methods followed in the development programme showed striking contrasts, and the principles followed in farming and stocking the areas during and after development were seldom similar. For the above reasons it has been found necessary to deal with each district visited under separate headings.

King-country Areas.

The Committee visited and inspected many blocks in what is popularly referred to as the "King-country," and for the purposes of this report it can be assumed that the area in question covers that portion of the central North Island lying between the easy rolling lands of the Waikato to the north and the broken steep lands of the Wanganui basin to the south. The greater portion of the area being developed and reconditioned is located in the Waitomo County, but other areas are located in the Kawhia, Otorohanga, Waipa, Ohura, Taumarunui, and Waimarino Counties.

Many of the areas under review were opened for selection by the Lands and Survey Department at the beginning of the present century. The altitude ranges from 250 ft. to 2,000 ft. above sea-level, and the rainfall averages from 60 in. to 80 in. annually. The country is undulating to broken, and in places intersected by gorges and outcrops of limestone and sandstone. The quality of the soil varies from heavy to light loam on clay to that of a light pumice nature on a formation of clay, limestone, sandstone, rubble, or papa.

The land is well watered by rivers, streams, and springs, and was originally approximately two-thirds bush clad. The pastures which were obtained after felling and burning the bush were good, and, generally speaking, stock did remarkably well for periods varying from five to twenty years. The country was handled by the original settlers with apparent success along lines which were accepted as sound farming practice at the time, but experience has now shown that the methods used proved unsuitable to the class of land involved. The land began to revert until by 1933 conditions generally were desperate. Large tracts of country were a mass of fern, manuka, ragwort, and second growth where once good grass had been established following the felling and burning of the bush. Buildings and fences were in a very dilapidated state, and holdings were being abandoned in large numbers. The history of this reversion could be made the subject of a lengthy report by itself, and, although the undermentioned factors are not the only contributing ones, the Committee considers the following were the major causes of the reversion:—

- (1) High initial prices paid for land which failed to hold grass though clothed in a class of bush which from experience in other parts of New Zealand gave every indication of producing high-quality farms;
- (2) There was no indication that in many cases the land was deficient in certain minerals essential to the well-being of stock;
- (3) The high rainfall coupled with humidity resulted in a vigorous growth of fern and secondary native flora which could only be adequately controlled by stocking methods beyond the financial capacity of the settler:

- (4) The incidence of ragwort, which necessitated the abandonment of dairying:
- (5) A lack of soil fertility sufficient to promote and hold the growth of English grasses:
- (6) Insufficient subdivisional fencing, which would have enabled better pasture control.

The Committee is convinced that the problems enumerated above can and have been overcome, and that the blocks under the control of the Department are ample testimony of this contention. The methods adopted to overcome the problems can be briefly described as follows:—

- (1) The settlers still remaining in the district have been assisted generally under the revaluation provisions of the Land Act, and also under the Mortgagees and Lessees Rehabilitation Act:
- (2) The problem of the mineral-deficient lands was overcome with the discovery that the major cause of “bush sickness” was the absence of cobalt, which is now applied through the medium of cobaltized superphosphate:
- (3) The remedy in this case is to use sufficient stock to cope with the extraordinary growth, particularly of fern, during the late spring and early summer. This course is particularly necessary during the first two years with a pasture sown on fern land. Any losses which might accrue through the necessity of purchasing the stock required must be regarded as a capital development charge:
- (4) Ragwort and its control is essentially a problem associated with dairying and where the incidence is great can be controlled only by the systematic and often costly grazing of sheep. Though at one time viewed with extreme alarm, there is no doubt that ragwort can be controlled with sheep and on small dairy-farms where the farmer is prepared to apply himself by the use of sodium chlorate or kindred weed-killers:
- (5) The natural lack of fertility has been overcome with remarkable success by the hand top-dressing of the hilly country with artificial manures:
- (6) Where development has been undertaken, the Department has immediately followed up the grassing with the necessary subdivisional fencing.

The work undertaken by the Lands and Survey Department in the King-country was a task of major national importance, and it can be said that the work has been worth while if only on account of the beneficial effect it has had on the district as a whole, and on the outlook of the individual farmer in particular. There now appears to be every prospect of the King-country developing into the prosperous farming district it was originally considered capable of becoming. So far as the actual blocks which have been reconditioned and developed are concerned, it must be reiterated that it was never intended that they should be loaded with the labour-costs which have been incurred, and the Committee is of the opinion that such a policy was sound in view of the dual purpose involved—i.e., the relief of unemployment, and the reconditioning and development of reverted areas. The following recommendations are made with regard to future operations:—

- (1) When conditions permit, there should be an extension of the present operations by the Department. The very nature of the work and its extent make it an undertaking which should be carried out on a large scale by the State. Before further work is commenced, however, there should be a comprehensive classification of the lands involved. From the Committee's investigations it was made clear that no area should be tackled unless it contains a reasonable proportion of ploughable land suitable for cropping for winter feed. Again, there are certain areas which are on account of their contour or quality quite unsuitable for development. The classification should therefore be into two main divisions:—
 - (a) Areas suitable for development and settlement; and
 - (b) Areas considered unsuitable and which might either be allowed to regenerate to forest or be handed over to the State Forest Service for future planting operations:
- (2) The ultimate objective of the development should be the subdivision of the completed areas into economic farm units. The question of the tenure on which the units should be held is a policy question, and not one for the Committee to decide. It is most important, however, that the subdivision should not take place until development is complete, the possibility of reversion has passed, and the area in question is not still required in connection with further development operations on adjoining or adjacent country:
- (3) It is patent that the most economic method of development is to deal with the country “on a face,” and with expedition. Such a procedure would, however, bring to light innumerable difficulties in view of the different ways in which the land is held by the owners and occupiers. There is a large proportion of the undeveloped country held by Native owners which is a nursery for noxious weeds and a menace to adjoining lands. The Native lands are not alone in this respect, and there are large undeveloped areas of freehold land and land held under Crown leaseholds which are in a similar state. Despite the difficulties involved, it is considered that the necessity for the development “on a face” is sufficiently important to warrant special powers being provided to enable such a policy to be carried out:

- (4) Irrespective of the manner in which the individual units are ultimately allotted to the occupiers, it would be fatal not to see that strict supervision is enforced following the occupation by individuals over their farming operations and care of stock. It has been proved that some settlers are apt to sacrifice the control of ragwort, repairs to fences, &c., to the desire for an immediate increased cash return, with the result that there is again a tendency to reversion. In other words, the knowledge gained from past experiences must on no account be ignored, and good husbandry in all its branches must be followed.

Rotorua District.

The blocks under development in the Rotorua district were also visited, and in this area the Committee found an entirely different set of circumstances from those pertaining in the King-country. The land being developed comprises for the most part portions of the "pumice" country, and the results in the establishment of grass on what was once a despised area were exceptionally good. The total area under development in this particular district is approximately 91,500 acres, of which some 42,000 acres are either in grass or crop. Whereas the work in the King-country entails the development and reconditioning of reverted areas, the work in the Rotorua district is the development of marginal land of easy contour. The blocks inspected were situated in various localities extending from Edgecumbe in the Bay of Plenty to Reporoa on the Rotorua-Taupo Highway. The land at Edgecumbe is what is known as the Tarawera ash country. The first attempt at development was commenced in 1931 with work on the Onepu Block, which was satisfactorily settled on completion of development work. The success achieved encouraged the development of the Tarawera Block, on which settlers have also been established, and also the Edgecumbe Block, on which development is now proceeding. These blocks lie in a good district served by rail and good road facilities, and their development is an enlightening example of what can be done on marginal land with the use of phosphatic fertilizer and by proper grazing prior to the commencement of dairying, for which purpose the land is ideally suited.

The remaining blocks visited were in the pumice area, and here again gratifying results have been obtained. As previously mentioned, the lands in this district are, generally speaking, of easy contour, and are in their natural state covered with a growth mainly of fern, tutu, manawa, and manuka. Clearing and stumping are therefore comparatively easy and not costly, and the land lends itself admirably to the use of tractors and tractor implements for cultivation, sowing, and top-dressing. Large areas can be handled at the one time, and a bold annual programme of development can be arranged. The Committee was impressed with the following salient points with regard to pumice-land development:—

- (1) The large and vital part played in the development of grassland and in its subsequent maintenance by phosphatic fertilizer;
- (2) The need for the light and judicious grazing by cattle of the pasture during the humus-forming and consolidation period, and the consequent restriction of heavy grazing by dairy cows or sheep until such time as the pastures consolidate;
- (3) The large areas still available for development.

While this district is not so well favoured climatically as the Waikato district, there are certain features of the two districts which are not dissimilar, and there is no doubt that the area has a distinct future as a large dairying district.

A noticeable feature of pumice-land development is the large area that has been planted in trees both by private companies and by the State. The question arises as to whether it would be more useful to extend tree-planting operations than to establish grass pastures on the pumice lands. The Committee is of the opinion that there is ample scope for both projects and that a balanced programme covering both tree-planting and grass establishment should be carried out in the future. The establishment of grass should have preference on those areas which are more suitable and of better quality. The quality of the pumice lands varies, and tree-planting should not be undertaken unless in the first instance the land is not considered suitable for grassland farming.

Whereas grass is established reasonably quickly, tree-growing involves a long-term period before the productive period is reached, and in view of the many factors operating any comparison of the ultimate utility value of the respective projects would be largely speculative.

North Auckland.

The areas visited in the North Auckland district were of two distinct types—

- (1) The coastal sandy country west of Dargaville;
- (2) A typical gum-land block at Mangawai.

In the former case the area comprises a belt of consolidated sand country adjoining the west coast. The Rehutai and Te Maire small farms settlements are situated in this area, and a visit was paid to the latter, and also to Bradley's Block adjoining, which was recently purchased and is being developed for soldier settlement. The work carried out on these blocks to date has proved that this particular type of country will hold good pasture for dairying. The main drawback is the need for shelter and the reticulation of adequate water-supplies to the respective subdivisions. The latter has been carried out on the Rehutai and Te Maire Blocks by community schemes, and there is also a suitable source of supply on Bradley's Block. There appears to be no doubt that the development of areas within this coastal belt is sound and good dairy-farms should result.

The gum land at Mangawai comprises an old kauri-gum reserve which had been extensively dug over for gum and before development commenced contained a large number of big gum holes. In the later stage of development a bulldozer has been used

to advantage to fill in these holes, and good grass has been established. The subdivision of this block into dairying units is the ultimate objective. The Committee was impressed with the scope offering for development in the North Auckland district and with the large areas of easy contoured land still undeveloped.

Hawke's Bay.

The operations in the Hawke's Bay district are limited to work on three main blocks and two surrendered holdings. The large block, the Kakariki Estate, contains over 19,000 acres, and was purchased in 1931 under the Land for Settlements Act. This block for the most part comprises light pumice country which was in a very deteriorated state when taken over. It responds well to artificial manuring, but the scrub-reversion factor is a big one and adds to maintenance costs. Development has not proceeded sufficiently to enable subdivision of this block, as the more-developed portions are necessary to enable the poorer portions to be adequately stocked to assist further pasture establishment.

The Kahika Estate, of approximately 10,500 acres, comprises an area which was originally held under Native leases. Prior to the expiry of the leases the Native interests were purchased by the Crown, and on expiry of the leases in 1937 development operations were commenced. About one-half of the area consists generally of long steep spurs of a heavy clay formation, and has been farmed by the previous lessees for some sixty years. Although originally well fenced, the fences during the latter period of the lease were allowed to get into serious disrepair. At the time work commenced, about one-third of the area was in good grasses which, however, had been badly controlled during the last few seasons, another third had reverted to scrub and fern, and the balance was beginning to revert. Although a lot of work has been done in the reconditioning of this large block, it would not be advisable to consider placing settlers on the area until development is completed, and, furthermore, in view of the cost of access roading the questions of continuing to run the block indefinitely as a station should be seriously considered.

The Ahuriri Lagoon, of 7,753 acres, was also inspected. This block was originally a shallow tidal area, but the 1931 earthquake brought about an uplift of from 5 ft. to 7 ft. and made possible its reclamation and development for farming purposes.

In 1934 the Crown leased the area from the Napier Harbour Board, with a view to a scheme of reclamation and development being carried out, the ultimate object being the subdivision and settlement of the area by the Small Farms Board when the land reached a sufficiently sweetened and matured state. The Harbour Board assumed liability for the reclamation costs, the Unemployment Board were to find the labour-costs, and the Small Farms Board undertook the cost of farming and development.

The reclamation work entailed a very extensive scheme of banking, draining, roading, and bridging. About 1,500 acres is drained by gravity, and the balance by a system of deeper drains leading to pumping-stations, at which the water is lifted by electric pumps into the main tidal outfall. An extensive water-supply system to supply the whole area has been installed, the source being a number of artesian wells at the southern extremity.

The salt content is, of course, the main difficulty in the profitable utilization of the lagoon area. The desalting drains have proved very effective, and by the autumn of 1936 it was possible to lay down an area of 280 acres in permanent pasture and carry out a certain amount of experimental cropping. Apart from the pastures which have been established, the rapid spread of natural growths has increased the stock-carrying capacity. At the present time there is a total area of 1,370 acres in either permanent or temporary pasture, while there are large areas covered by natural growths suitable for grazing stock; approximately 340 acres are in crop comprising barley, lucerne, mangels, and pumpkins. Good crops of green peas for canning have been grown, and fair results obtained from experimental asparagus crops. Generally speaking, the trials have shown that the soils on the lagoon are as yet rather immature to expect particularly good results, but when fully sweetened and matured the area will be one of high productive value and capable of close subdivision.

During the desalting process a large number of sheep and a limited number of cattle are being run, and the area last year wintered 2,796 ewes, 6,059 dry sheep, and 197 head of cattle. A total of 2,569 lambs were docked.

The work being done on this area will provide a great asset to the Hawke's Bay district, and, situated as it is alongside Napier, will ultimately provide small holdings for a large number of people.

CONDITIONS OF EMPLOYMENT.

It has already been pointed out that the development work was in the main started as a relief-of-unemployment measure. Unemployed men were drafted to the various blocks, and their conditions of employment were fixed by the Unemployment Board. Married men who were in the category of prospective settlers worked a 47-hour week, and were paid according to a scale, varying with the number of dependent children. Where single men were employed on development work the usual "single men's camp" conditions applied.

In 1936 a separate agreement was concluded between the Hon. the Minister of Lands and the New Zealand Workers' Union governing the terms and conditions of employment of men on land-development work. This agreement was further revised in 1939, and applies to all men who are engaged on the development blocks and who are not regarded as occupiers, the latter being men who have been selected to occupy holdings, and are more or less permanent farm hands.

Men who are engaged on the usual development work work a 40-hour week and are paid at an hourly rate. The work they perform is similar to a degree to work performed by Public Works employees, and the conditions under the agreement are very similar to those embodied in the Public Works workers' agreement, and a large amount of work is done on co-operative contract. Overtime is, however, not worked unless the men are called upon to perform essential or seasonal duties outside of and in addition to the

ordinary working-hours. Such additional time is paid for at the usual hourly rate. Drivers (horse, lorry, or tractor) and stockmen are engaged on a weekly rate basis, the former working a 42½-hour week and the latter having no fixed hours.

The occupiers are not subject to the agreement, and are on call for the full seven-day week. They are paid a weekly wage, and a deduction is made for house rental. They are given additional annual holidays in lieu of statutory holidays worked during the year.

The occupiers fall into two main groups:—

- (a) Those who are engaged on essentially grazing properties and who are to all intent and purpose farm hands:
- (b) Those who are milking herds and who work for a minimum wage plus a bonus on production. The essential features of the scheme are—
 - (1) The occupier is given a specified area and a herd varying from thirty to forty cows;
 - (2) He is required to do all seasonal work, including harvesting and top-dressing;
 - (3) He is paid a wage, from which a deduction is made for house rental; and
 - (4) A bonus is paid on the following basis: 25 per cent. of the value of all butterfat produced in excess of 6,000 lb. for the season; 50 per cent. of the proceeds of all pigs-sales in excess of £1 10s. per cow milked; in respect of calves reared, 5s. for each first-class calf, 4s. for each second-class calf, and 2s. 6d. for each third-class calf.

The Committee considers that, while the existing terms and conditions are quite satisfactory so far as straight-out development work is concerned, there is room for some variation when men are engaged solely on seasonal farming operations which gradually become a function as the land is developed and cropping and stocking become necessary.

There is a distinction between development and seasonal operations, and this distinction is not only present on blocks being developed by the Crown, as private farmers engage a considerable amount of outside labour to carry out new development work. The Committee therefore considers that fresh terms and conditions should be made applicable to men engaged solely on seasonal or farming operations, and the following is suggested:—

- (a) Men engaged on roading, bridging, draining, clearing, stumping, logging, fencing, and other kindred work should continue to work under the existing agreement:
- (b) New terms and conditions should apply to men engaged on actual farming operations such as cultivation, top-dressing, sowing, maintenance work generally, harvesting, and care of stock.

Work of the nature under (b) cannot be carried out on a forty-hour-week basis between Mondays and Fridays, and is very often dependent upon favourable weather conditions. While it is not suggested that men on seasonal or farming work should be asked to work unlimited hours, it is reasonable that they should be on call when required for any urgent seasonal work, and there should be no difficulty in varying the existing agreement to allow of more elasticity so far as seasonal and farming work are concerned.

With regard to the men who are selected as occupiers, the present system appears to be working satisfactorily, and no change is suggested.

The successful development of land depends to a large degree on the efficiency of the men employed on the work. In the past, land-development schemes have been used as an avenue to absorb unemployed labour, which for the most part was unskilled and not suited to the work. The use of this unskilled labour has undoubtedly increased costs, and it is recommended that in future some method be evolved under which the Department will have the right to choose its own men. If at the end of a limited period any man has shown he is unsuitable to the work, then his employment should be terminated.

FARM FORESTRY.

On all development schemes there is a heavy demand for fencing-timber and timber for ordinary farm use, and this demand will always be present for future maintenance of fences. At the present time posts are both scarce and costly. It was noted that particularly in the King-country there were few plantations of exotic trees, although those that were seen were doing remarkably well. The absence of plantations is no doubt partly due to the high risk of fire in a district where burning off of fern is an important part of the routine of husbandry. As the fern becomes replaced by permanent pasture the fire hazard will diminish, and the Committee is of the opinion that the Department should establish plantations for the express purpose of providing fencing-timber in each locality to avoid in future the heavy costs now incurred. Eucalypts of various kinds appear to thrive in this district, and one specimen of *Eucalyptus macarthuri* was seen which at twelve years old was 18 in. in diameter. Areas within a development block not suitable for grassing could without doubt be advantageously planted in trees. This latter work should be undertaken by the Lands and Survey Department as part of the development operations.

PHOSPHATIC FERTILIZER.

An outstanding feature of the investigations has been the fact that the successful development of the lands being handled is wholly dependent upon the availability and use of phosphatic fertilizer.

The establishment and maintenance of grass on the hill country in the central North Island district, on the pumice lands of the Rotorua district, and on the gum lands of North Auckland under the existing farming practice are effective only by the liberal use of artificial fertilizer when the pasture is sown and by liberal subsequent top-dressing. In view of the present rationing of phosphatic fertilizer, it will readily be seen that

further new development work cannot proceed, and no new grassing other than the sowing of grass out of crop has been carried out since the fertilizer-rationing scheme was instituted. Every possible endeavour should, however, be made to maintain the grassing already established by the application of whatever fertilizer can be made available. In this connection the Department has been rationed in the same manner as private farmers, and the Committee does not suggest that the position should be otherwise. While it is readily conceded that the cropping requirements of the Dominion should have first claim on the available fertilizer-supplies, there appears to be some merit in the proposal for a classification of all grasslands which are top-dressed annually. The question is not without difficulties, but a rationing scheme which would give the light types of country, whether being farmed privately or being developed by the State, a greater proportion of fertilizer per acre than the older-established and better-quality lands would go a long way towards effective maintenance of the former types of land until normal fertilizer-supplies are again available.

The present shortage of phosphatic fertilizer brings forcibly to notice the dependence of our pastoral industries on the importation of phosphatic fertilizer, and the desirability of an investigation into alternative methods for the maintenance of our grasslands.

THE USE OF MACHINERY.

During depression years land development was undertaken chiefly as a means of providing productive employment for unemployed labour, and it naturally followed that the use of machinery was restricted to a minimum in order to provide as much manual work as possible for the surplus labour available. The Committee, however, considers that the work is of such importance that in any future operations full advantage should be taken of the use of efficient plant, including plant belonging to private contractors, which, besides being more economical than manual labour, also enables the more expeditious handling of the various types of work involved.

The degree to which plant can be used instead of man-power is governed to a large extent by the contour of the country being handled, and as an example of this is it can be said that there is far more scope for the use of tractors and tractor-drawn implements on the easier Rotorua lands than on the steeper-contoured King-country lands.

CONCLUSION.

Speaking generally, all the blocks visited by the Committee could only be brought in by large-scale operations, and the development of these lands is a national undertaking of paramount importance. It must be accepted that most of the land being developed cannot be brought to a fully productive stage at a cost upon which farming activities can be made profitable, and a writing-down to a fair value will be necessary.

The development of similar lands previously has been undertaken by individual settlers who selected the land in its virgin state, and in many cases spent a whole lifetime struggling against the difficulties brought about by lack of capital, in many cases lack of road access, and above all the peculiar problems of holding pasture and preventing reversion. Instances are plentiful of families who have stuck grimly to their holdings through three generations, and it is only the third generation which has been able to farm at a profit. The history of land settlement in New Zealand shows how successive Governments have had to assist settlers continuously by way of concessions in rent, interest, and capital charges, and even then many have failed, and wasted the best portion of their lives in an endeavour to break in and make a farm. In many cases they have also had the benefit of the labour of their families.

The prior development of the land by the State has everything to commend it, and if a settler is established on a fully developed farm, and farms it in accordance with the established rules of husbandry for the district, he has only to look to his own personal efforts to be a successful farmer.

It seems far preferable to develop land in large blocks and write off any costs in excess of productive value than to give an individual a life-long task in breaking in a farm from the raw, during which period he requires liberal assistance, and then only reaps his reward, if at all, in the evening of his life.

The selecting of land suitable for development requires careful consideration, and the time is ripe for a comprehensive survey of the whole Dominion, with a view to classification of all land for the purpose of assessing its utility value. The problems which have been successfully overcome in the King-country are present to a greater degree in other districts in the North Island not visited by the Committee; but it is not suggested that their reconditioning and development should be undertaken as a matter of course. Areas unsuitable for development should be definitely set aside for whatever purpose they are most suited, and development confined only to those areas which can be successfully grassed and maintained. There is scope for the setting-up of a competent authority to classify land according to its utility value, so that each particular type of land can be used according to its real value to the Dominion. It is realized that this may mean the abandonment of certain areas which are at present occupied and which are provided with some social services, but the long view must be taken, and if successful farming is not possible, then the land must be put to some other use.

APPRECIATION.

The Committee records their appreciation of the wholehearted assistance and co-operation given by the officials of the Lands and Survey Department during the period of their investigation.

B. ROBERTS, Chairman.

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